

Notice of Allowability

Application No.

10/614,839

Examiner

Dominic E. Rego

Applicant(s)

HARRIS ET AL.

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/21/07.
2. ☒ The allowed claim(s) is/are 1-11, 13-36 and 38-43.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted:
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>8/29/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeff Jacobs on 8/29/2007.

The application has been amended as follows:

In the claim:

In claim 1, The Phrase "signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced" in lines 10-11 have been replaced with -- signaling the MS to transition to at least one operational mode in which a period of paging-related delay for the MS is reduced, wherein the at least one operational mode comprises at least one MS mode from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode--.

In claim 26, The Phrase "the method, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-

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dormant mode" in lines 1-5 have been replaced with -- The method of claim 1, wherein the MS performs periodic location updates in the semi-dormant mode--.

In claim 32, The Phrase "signaling the MS to transition to at least one operational mode in which paging-related delays for the MS are reduced" in lines 13-14 have been replaced with -- signaling the MS to transition to at least one operational mode in which a period of paging-related delay for the MS is reduced, wherein the at least one operational mode comprises at least one MS mode from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode--.

In claim 33, The Phrase "the RAN, wherein the at least one operational mode comprises MS modes from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode, wherein the MS performs periodic location updates in the semi-dormant mode" in lines 1-5 have been replaced with --The RAN of claim 30, wherein the MS performs periodic location updates in the Semi-dormant mode--.

(End of Amendment).

Allowable Subject Matter

1. Claims 1-11, 13-36, and 38-43 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record, specifically Schmidt et al. (*US Patent Application Publication #20030099214*) teaches a method of reducing paging-related delays for anticipated target mobile stations (MS), the method comprising:

anticipating by a radio access network (RAN) (*paragraph 0012*) that an MS is likely to be a target of communication not yet initiated (*Paragraphs 0070 and 0089: Rosen teaches the infrastructure may send the wakeup trigger 412 to a target listener over some available common forward channels, such as forward paging channel and forward common control channel, while the target listeners' traffic channels are not re-established yet*)

performing at least one of:

when a loading level of a serving cell of the MS is below an assignment threshold, assigning a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication and signaling the MS to transition to at one operational mode in which a period of paging-related delay for the MS is reduced (*See Figure 7: Rosen teaches transitioning, as triggered by the presence of the at least one condition, to at least one operational mode from Idle state to Active state in which paging-related delays for the MS are reduced; Also see Paragraphs 0105-0110*).

However, none of the prior art cited alone or in combination provides the motivation to teach wherein the at least one operational mode comprises at least one MS mode from the group consisting of a semi-dormant mode, an unslotted mode, a

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control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode.

Regarding claim 30, the prior art of record, specifically Schmidt et al. (*US Patent Application Publication #20030099214*) teaches a radio access network (RAN) comprising:

wireless transceiver equipment adapted to support signaling transmission and reception for each cell of a plurality of cells; a communications controller, communicatively coupled to the wireless transceiver equipment for each cell of the plurality of cells (*Paragraph 0012*),

adapted to anticipate that a mobile station (MS) is likely to be a target of communication not yet initiated (*Paragraphs 0070 and 0089: Rosen teaches the infrastructure may send the wakeup trigger 412 to a target listener over some available common forward channels, such as forward paging channel and forward common control channel, while the target listeners' traffic channels are not re-established yet*), except

adapted, to perform at least one of
assigning, when a loading level of a serving cell of the MS is below an assignment threshold, a traffic channel to the MS to avoid paging-related delays for the MS should the MS become a target of communication and
signaling the MS to transition to at least one operational mode in which a period of paging-related delay for the MS is reduced (*See Figure 7: Rosen teaches transitioning, as triggered by the presence of the at least one condition, to at least one operational*

mode from Idle state to Active state in which paging-related delays for the MS are reduced; Also see Paragraphs 0105-0110).

However, none of the prior art cited alone or in combination provides the motivation to teach wherein the at least one operational mode comprises at least one MS mode from the group consisting of a semi-dormant mode, an unslotted mode, a control hold mode, a speculative scanning mode, and a reduced slot cycle index (RSCI) mode.

Dependent claims 2-11, 13-29, 31-36, and 38-43 are allowed for the same reason.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic E. Rego whose telephone number is 571-272-8132. The examiner can normally be reached on Monday-Friday, 8:30 am-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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NAY MAUNG

SUPERVISORY PATENT EXAMINER